
REPORT FOR THE YEAR 1900


OF

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TO THE

Urban District Council of Withington.



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REPORT

UPON THE

Urban District Council of Withington

FOR THE YEAR 1900.

I.

Tabular statement of the mortality within the district, classified according to diseases, ages and localities.

Table I. is an extract from the Census returns of 1891. It gives the area in acres of the Withington district, the number of houses in 1891 and the populations in 1891 and 1881, of the four townships comprising the district.

TABLE I.

Townships.	Area in Acres.	Houses in 1891.			Population in 1891.			1881.
		Inhabited	Not Inhabited	Build- ing	Males.	Females	Totals.	
Withington ...	2,229	1,952	134	9	5,069	6,946	12,015	9,328
Didsbury ...	1,553	1,436	87	29	3,044	4,326	7,370	4,604
Chorlton-c.-Hardy	1,280	944	60	33	2,088	2,653	4,741	2,332
Burnage ...	666	334	17	—	763	840	1,603	848
Totals ..	5,728	4,666	298	71	10,964	14,765	25,729	17,109

In this table the population of the Chorlton Union Workhouse is included in that of Withington. If this number be elimin-

ated, the Withington population is reduced to 10,124, and the total population of the district in 1891 to 23,838. This latter number yields the proportion of 5·1 persons per inhabited house.

During the past year the number of deaths registered as having actually occurred in the district, not including the Chorlton Union Workhouse, amounted to 357.

To this number must be added 33 deaths which took place in the Workhouse among persons admitted from the district, and also 22* which occurred in various places outside the district in persons belonging to the district and from it must be subtracted 4 deaths which, although taking place in the district, were of persons coming from outside. The total thus arrived at is 408. Of these 206 were males, and 202 females.

It is estimated that on April 1st, 1900, there were 7,281 houses in the district, a number which shows an increase of 2,317 during the nine years following the last Census. From the former figures 437 have to be deducted for houses uninhabited at that date, leaving 6,844 inhabited houses from which we may calculate the population.

Taking the proportion of 5·1 persons for each house, which was found to exist at the time of the Census of 1891, we

* The 22 deaths outside the district among persons belonging to it, were due to the following causes:—At Monsall Hospital, seven from scarlet fever and one from diphtheria; at the Manchester Infirmary, 2 from injuries, 1 from heart disease and one from diseases not classified; at the Lock Hospital, one from syphilis; at the Southern Hospital, one from diseases not classified; at the Clinical Hospital, one from pneumonia; at the Cancer Hospital, one from diseases not classified; in Blackpool, one from bronchitis, two from diseases not classified; in Dunham Massey, one from phthisis; in Wigan, one from diseases not classified; in Stockport, one from diseases not classified.

Of the four persons whose deaths are to be deducted, three died from drowning, one coming from Manchester, one from Salford and one from Middleton. The fourth death was caused by phthisis in a patient who had come from Manchester 36 hours previously.

estimate the population at the beginning of April to have been 34,904, and this number may be assumed to have increased at least to 35,000 by the middle of the year.

With this population, the death-rate for the whole district, not including the Workhouse, is calculated to be 11·6 per thousand living. The average death-rate for the preceding ten years is 12·5.

During the year 671 births were registered, 318 males and 353 females. This number is equivalent to an annual birth-rate of 19·1. This is the lowest birth-rate which has occurred during the last quarter of a century, and draws our attention forcibly to the steady falling off in the number of births which has been observable in the district during that period. The birth-rates are given here, for the sake of comparison, arranged in periods of five years. From them it will be seen that the average birth-rate for the period 1895-1899 is 25·9 per cent less than the corresponding rate for 1875-1879,

TABLE II.

<i>Birth-Rates from 1875 to 1899.</i>					
1875. 30·7	} Average birth-rate 28·5	1880. 26·4	} Average birth-rate 28·1	1885. 26·7	} Average birth-rate 23·2
1876. 29·3		1881. 26·5		1886. 22·0	
1877. 27·5		1882. 28·4		1887. 23·0	
1878. 26·5		1883. 31·0		1888. 21·8	
1879. 28·8		1884. 28·6		1889. 22·7	
1890. 20·9	} Average birth-rate 21·5	1895. 21·5			
1891. 22·8		1896. 21·5			
1892. 21·8		1897. 23·3			
1893. 21·5		1898. 19·7			
1894. 20·7		1899. 19·5			

In 1899, when the birth-rate for the Withington district was 19·5 per thousand, it was 32·2 in Manchester, and 29·3 for the whole of England and Wales.

These figures are very significant.

TABLE III.

<i>Comparison of the death-rates and birth-rates from 1891 to 1900.</i>										
	1891 Census	1892	1893	1894	1895	1896	1897	1898	1899	1900
Estimated population	24,000	24,700	25,400	26,100	26,800	27,500	28,200	30,000	32,000	35,000
Total number of deaths	363	340	330	284	329	315	335	387	363	408
Annual death-rates ...	15·0	13·7	12·9	10·8	12·2	11·4	11·8	12·8	11·3	11·6
Total number of births	548	540	548	542	577	602	658	593	626	671
Annual birth-rates ...	22·8	21·8	21·5	20·7	21·5	21·5	23·3	19·7	19·5	19·1

Table III. shows a gradual but satisfactory diminution in the death-rate of the district during the past ten years, as well as the equally gradual, but far from satisfactory, diminution of the birth-rate, as just referred to.

TABLE IV.

<i>Table of the ages at which the deaths occurred from 1895 to 1900.</i>						
	1895	1896	1897	1898	1899	1900
Under 1 year of age	69	67	63	82	66	75
Between 1 year and 5 years	17	31	27	37	29	31
Between 5 and 15 years ...	6	7	14	16	8	28
Between 15 and 25 years ...	15	16	14	18	11	15
Between 25 and 65 years ...	120	119	126	132	158	157
Over 65 years of age	102	75	91	102	91	102

Table IV. gives the "age groups" into which the 408 deaths have been formed. It will be seen that during the past year the relative numbers of the groups keep much the same as in previous years, the most noticeable increase being between 5 and 15 years.

The 75 deaths under one year give an infantile death-rate of 111 per thousand births, compared with 105 during the preceding year. It is possible that this infantile death-rate is to a certain extent affected by the comparatively small number of births. Table V. gives the corresponding figures for the previous eleven years.

TABLE V.

Deaths under one year of age. Rate per thousand births from 1889 to 1900.											
1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
120	130	100	120	150	90	119	111	95	138	105	111

In the next Table we have classified the causes of death in these 75 cases.

I. The deaths from pulmonary diseases are almost twice as numerous as those of the preceding year, but compare favourably with the corresponding ones of 1897 and 1898.

The death-rates from these diseases per thousand births for the four years mentioned, are as follows:—

Year	1897	1898	1899	1900
Rate	19.	26.	7.	13.

II. The deaths from infectious diseases are considerably in excess of those of 1899, and the death-rates per thousand births for the past four years, stand as follows:—

Year	1897	1898	1899	1900
Rate	16.	15.	8.	20.

TABLE VI.

Causes of death under one year of age.			
	1900	Corre- sponding figures for 1899.	
I. Pulmonary diseases. Bronchitis, &c.	9	5	
II. Infectious diseases...	{ Measles	3	1
	{ Whooping cough.....	1	1
	{ Influenza	0	1
	{ Tuberculosis	5	2
	{ Venereal diseases.....	5	0
III. Diet diseases	{ Diarrhœa	5	16
	{ Wasting and gastro intestinal catarrh	8	11
	{ Convulsions	8	13
IV. Congenital diseases..	{ Premature birth and debility	17	11
	{ Spina bifida	1	0
V. Other causes	{ Intussusception	0	1
	{ Injuries	3	1
	{ Not classified	10	3
	75	66	

With regard to the five deaths due to tuberculosis, two were of the abdominal and three of the cerebral form of the disease. As in all five cases the infection was undoubtedly taken from without, it appears possible that tuberculous milk was the cause of the disease, the stomach being the most usual path I believe, by which tuberculosis gains the system in the early months of life.

III. Diet diseases, including diarrhœa, shows a marked improvement when compared with the figures of 1899.

The death-rates per thousand births for the past four years, are as follows:—

Year	1897	1898	1899	1900
Rate	30.	55.	63.	31.

IV. The deaths from congenital diseases are greater in number than in the previous year.

V. The fifth group contains one death in an infant, probably from suffocation as it was found dead in bed, and two deaths of newly-born infants from the want of proper attention at birth.

The 75 deaths under one year were distributed among the four townships comprising the district in the following manner:—Withington 25, giving a death-rate of 94 per thousand births; Didsbury 20, or a death-rate of 128 per thousand; Chorlton-cum-Hardy 22, or a death-rate of 121 per thousand; and Burnage 8, or a death-rate of 114 per thousand.

TABLE VII.

<i>Comparison of the death-rates under one year in the four townships per thousand births. 1895 to 1900.</i>						
TOWNSHIPS	1895	1896	1897	1898	1899	1900
Withington	140	120	92	142	157	94
Didsbury	100	96	81	118	50	128
Chorlton-cum-Hardy	90	90	84	152	90	121
Burnage	140	148	165	132	102	114

This Table (Table VII.) shows that the rate of infantile mortality of Withington is much lower than it has been during the last two years, but that in the remaining townships it is higher than last year.

The freedom from error of these figures, on account of the number of both births and deaths being accurately known, renders them a very valuable factor in the consideration of the mortality of the district.

The average number of deaths of infants under one year per thousand births, in England and Wales during the ten years 1881-90, amounted to 142.

In Table VIII., we have the causes of death of all children under five years of age.

TABLE VIII.

<i>Deaths throughout the district in children under five years of age, from 1889 to 1900.</i>												
NAME OF DISEASE	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Measles	5	6	1	5	..	7	5	1	11	2	1	6
Scarlet fever	1	1	2	..	2	..	..	..	..	2	..	4
Diphtheria	5	2	1	..	1	..	..	..	..	2	2	2
Croup (membranous) .....	..	1	..	..	1	..	..	3	..	2	..	1
Whooping cough ..	7	3	7	10	3	1	2	9	4	5	5	3
Enteric fever .....	..	..	..	..	..	..	1	..	..	..	..	..
Typhus fever .....	..	..	..	..	..	..	..	..	..	..	..	..
Other or doubtful fevers .....	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	12	11	2	4	17	..	14	6	8	12	19	7
Influenza .....	..	..	..	..	1	..	1	..	2	3	1	1
Bronchitis, pneumonia, and pleurisy	17	14	20	27	17	11	13	23	14	19	9	13
All other causes ..	62	56	67	54	63	51	50	56	51	72	58	69
Total	109	94	100	100	105	70	86	98	90	119	95	106

The number of deaths from measles constitute a serious item in the figures for 1900. This disease, as will be seen in a later part of the report, has been very prevalent during the

year, especially in the earlier months. Three of the deaths have already been mentioned in connection with the deaths under one year.

The four deaths from scarlet fever in the table, were in children removed from the district to Monsall Hospital, no death from the disease taking place in the district itself under the age of five years. Two of these cases were sent from Didsbury, one from Withington and one from Burnage.

The two deaths mentioned as being caused by diphtheria, took place, one in Withington and the other in Monsall Hospital in a patient admitted from the same township.

The death from membranous or diphtheritic croup occurred in a house in Withington in a child whose elder brother had died from the same disease ten days previously.

The three deaths from whooping cough, took place in the townships of Withington, Didsbury and Chorlton-cum-Hardy, one case in each.

Of the seven deaths from diarrhoea, five have already appeared in the table relating to deaths under one year.

With regard to the distribution of the 106 deaths under five years, we find that 31 belonged to Withington, 33 to Didsbury, 32 to Chorlton-cum-Hardy and 10 to Burnage. The following table (Table IX.), contains the death-rates per thousand of the populations estimated for the different townships, in children under five years of age. It is impossible however, owing to the populations for 1900 being somewhat theoretical to attach the same importance to these figures as one is able to do with regard to the infantile death-rates per thousand births, as shown in Table VII, but the figures relating to the Census years will be so nearly correct that they may be taken as being exact.

TABLE IX.

Death-rates per thousand of the population of the different townships in children under five years of age in 1900, compared with those of 1881 and 1891 (Census years).

TOWNSHIPS.	1881	1891	1900
Withington	3·7	4·6	2·1
Didsbury	3·4	2·4	3·4
Chorlton-cum-Hardy	5·1	4·1	3·8
Burnage	1·1	8·6	4·3

Table X. presents the causes of death at all ages throughout the district, and includes the deaths which have taken place in the Chorlton Union Workhouse and in localities outside the district, among persons belonging to it.

The most striking features of this table are the figures relative to some of the zymotic diseases bracketted together at its head. Measles and scarlet fever have both been prevalent, as we have already seen, and have both caused a considerable increase in the number of deaths, when compared with the previous year. But the most serious item is formed by the number of deaths due to epidemic influenza. This fatal disease was very prevalent at the beginning of the year, the epidemic lasting until the middle of April, when it died away, to make its appearance again in December. Of the 19 deaths recorded, 11 were in females, 8 in males. Six of the cases were in persons over seventy years of age. Only two deaths occurred in young people under twenty. The rate per thousand living is 0·5. It is possible, also, that the number of deaths ascribed to bronchitis, pneumonia, and pleurisy may to some extent have been increased owing to the influence of

TABLE X.

*Death belonging to the district in persons at all ages,
from 1891 to 1900.*

DISEASES.	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Smallpox .....	..	..	..	..	..	..	..	..	..	..
Measles	1	5	..	9	5	1	11	2	2	7
Scarlet fever	3	..	3	..	2	1	2	5	1	8
{ Diphtheria	2	..	5	1	..	..	1	3	2	2
{ Membranous Croup ..	..	..	1	1	..	4	1	2	..	2
Whooping cough	7	10	4	1	2	10	5	5	5	3
{ Typhus fever .....	..	..	..	..	..	..	..	..	..	..
{ Enteric fever .....	..	4	4	1	2	2	..	4	1	..
{ Other or doubtful fevers .....	..	..	..	..	..	..	..	..	..	..
Diarrhœa	3	4	18	1	14	6	10	13	19	9
Influenza .....	..	..	6	4	12	10	13	16	18	19
Rheumatic fever	2	2	..	1	2	2	3	4	3	..
Erysipelas	1	2	..	..	1	..	1	..	1	1
Puerperal fever .....	..	1	2	1	..	..	..	1	..	..
Phthisis	34	23	24	25	27	25	23	25	24	37
Bronchitis, pneu- monia, and pleurisy	88	84	51	47	53	69	51	54	60	70
Heart disease	31	15	26	24	22	23	36	25	30	36
Injuries	6	16	12	13	9	11	10	19	11	3
Other diseases not classified	185	174	174	155	178	151	168	209	186	211
Total number of deaths	363	340	330	284	329	315	335	387	363	408

influenza. These diseases form 17 per cent of the total number of deaths, and a rate of 2 per thousand of the population.

The fatal cases of phthisis give a death-rate of 1 per thousand of the population.

The next table (Table XI.) shows the comparison between the general and the zymotic death-rates (not including influenza) of the four townships.

TABLE XI.

Township		Estimated Population	Total number of deaths.	General death-rate	Deaths from zymotic diseases	Zymotic death-rate
Withington	1900	14,673	178	12.1	14	0.9
	1899	13,263	164	12.3	16	1.2
	1898	12,408	175	14.1	19	1.5
	1897	11,686	134	11.4	16	1.3
Didsbury	1900	9,670	103	10.6	10	1.0
	1899	9,037	75	8.2	8	0.8
	1898	8,707	96	11.0	10	1.1
	1897	8,479	84	9.9	9	1.0
Chorlton-cum-Hardy	1900	8,360	95	11.3	5	0.5
	1899	7,502	104	13.8	5	0.6
	1898	6,752	88	13.0	4	0.5
	1897	6,032	65	10.7	14	2.3
Burnage	1900	2,297	32	13.9	2	0.8
	1899	2,198	20	9.0	1	0.4
	1898	2,133	28	13.1	1	0.4
	1897	2,003	25	12.4	1	0.4

Burnage has the highest general death-rate for the year, while Didsbury has the lowest. Didsbury on the other hand, has the highest zymotic death-rate, and Chorlton-cum-Hardy has the lowest. In explanation of the position occupied by Didsbury among the zymotic death-rates, we find that five out of the seven fatal cases of measles occurred in that township.

The zymotic death-rate for the whole district is 0.8 compared with 0.9 in 1899, 1.1 in 1898, and 1.3 in 1897.

The death-rates of the various zymotic diseases taken separately, are as follows :—

	Per thousand of the population.		
	1900.	1899.	1898.
Scarlet Fever	0·22	0·03	0·16
Diphtheria	0·11	0·06	0·1
Measles.....	0·2	0·06	0·06
Whooping Cough	0·08	0·15	0·16
Fever	—	0·03	0·13
Diarrhœa	0·25	0·59	0·43

II.

A Summary of the action taken during the year for preventing the spread of disease.

Smallpox.—No case of smallpox has been reported in the district during the past year.

Measles.—As we have already seen from the consideration of the mortality, this disease has been very prevalent in the

TABLE XII.

Cases of measles ascertained in 1900.

	Withington	Didsbury	Chorlton-cum-Hardy	Burnage	Totals
January	4	5	...	2	11
February	21	163	7	...	191
March	12	32	11	...	55
April	2	42	4	...	48
May	1	5	4	...	10
June	3	1	34	...	38
July	1	1	46	...	48
August .....	...	...	6	...	6
September .....	...	...	...	...	...
October .....	...	20	...	...	20
November	1	3	1	..	5
December .....	...	2	...	...	2
	45	274	113	2	434

district during the year, and has been accountable for more deaths than in any previous year since 1897. The deaths took place between February 8th and April 7th. Its fatality to young children is shown by the ages at which the deaths occurred, one was 6 months old, two were 10 months, two were 12 months, one was 14 months, and the seventh was 13 years. In five of the seven cases death was due either to bronchitis or pneumonia. The case mortality, or proportion of deaths to attacks, is 1·5 per cent.

In February a large number of cases occurred almost simultaneously in Didsbury and on February 10th, the Infants' Department of the Didsbury National school, which was chiefly implicated, was closed by order, and the Sunday schools in the neighbourhood, as regards children under seven, were closed by request, for one month. On February 20th, the whole National school was closed.

The disease also spread among the scholars of Christ Church school, Burton Road, West Didsbury, which was accordingly closed by order on February 12th, as regards the Infants' Department, the Mixed Department being closed on February 15th. The Sunday schools of the neighbourhood, were closed by request upon the former date for children under seven.

On February 13th, the Wesleyan school, Didsbury, closed as regards its Infant Department, without instructions from the Council, and the Wesleyan Sunday schools in the vicinity were closed on February 18th and 24th respectively.

On July 11th, in consequence of the prevalence of measles, the National school, Chorlton-cum-Hardy, was closed in all departments, by order, and all the Sunday schools in the neighbourhood were closed, by request, on July 15th, as regards children under seven.

These measures were taken as early as possible after it became evident that the schools were acting as centres for the spread of the disease, and infected houses were visited as soon

as information was received of the existence of cases, and clues were followed up from the cases already reported.

Printed precautions were distributed to houses in which cases occurred, and also to others in their immediate neighbourhood, and in every case the schools concerned (both day and Sunday), were warned of their existence.

No disinfection of the houses in which the disease occurred has been attempted, as the infection of a room is so readily dispelled by ventilation, and of clothes by exposure to fresh air.

With another year's experience, it is possible to repeat the opinion which was expressed in the annual report for 1899, viz.: "that the withdrawal of the disease from the operation of the Infectious Disease (Notification) Act, 1889, has proved to be satisfactory. The authorities of schools, the school attendance officer and the enquiries of the inspector of nuisances, have enabled the Council to trace probably the greater number of cases which have occurred."

Scarlet fever.—More cases of scarlet fever have been reported during the past year than in any since the passing of the Infectious Disease (Notification) Act, in 1889, as will be seen in the following figures:—

Year ..	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Cases..	81	46	53	57	117	90	102	120	177	70	68	264

With the exception of the township of Burnage, which has been very free, all the townships of the district have suffered severely from the disease. It has prevailed chiefly in Withington, where an epidemic (to be dealt with presently) occurred in May, as the result of the contamination of milk by scarlatinal poison, but it has also been constantly present in the townships of Chorlton-cum-Hardy and Didsbury. A reference to Table XIII will show the number of cases in each

TABLE XIII.

Cases of scarlet fever in 1900.

	Withington.	Didsbury	Chorlton-cum-Hardy	Burnage	Totals	Number removed to Hospital
January.....	4	3	7	1	15	5
February .....	...	1	4	1	6	1
March	2	1	4	...	7	3
April	6	4	2	2	14	6
May	58	8	4	...	70	46
June	6	4	4	...	14	7
July	3	7	1	...	11	9
August	10	5	7	...	22	11
September	5	...	1	...	6	6
October.....	7	2	2	...	11	7
November	1	1	3	...	5	4
December.....	6	4	13	...	23	10
	108	40	52	4	204	115

month in the different townships, together with the number removed to Monsall hospital. This latter number is equivalent to 56 per cent. of the total. A comparison of the per-centage removed to hospital with the corresponding figures of the previous four years is here given:—

Year	1896	1897	1898	1899	1900
Per-centage	54	65	57	25	56

The case mortality during the year amounts to 4 per cent., compared with 1·4 per cent. in 1899, 7 per cent. in 1898, and 5·6 per cent. in 1897.

As regards the epidemic in Withington, which occurred during the early part of May, it was clearly proved

to be due to milk infected with the poison of scarlet fever, which was supplied from a farm near Cheadle, in Cheshire. It appeared that the milk must have been contaminated from April 28th to May 5th, when the supply was stopped.

The occupier of the farm in question suffered from a sore throat on May 1st, but no rash was seen. Subsequently his wife and his mother-in-law both had bad throats, and on May 7th, one of the cow-men on the farm also was affected in the same way.

But although from the date of the earliest cases in Withington the milk from the farm must have been infected at least five days previous to the illness of the farmer, careful inquiries failed to elicit any information as to the existence of any previous case amongst the family or farm servants.

It was discovered however, during the investigation, that in a house immediately adjoining the farm, a case of scarlet fever began on April 5th, and that since that date several cases of sore throats occurred amongst the household. The farmer supplied the family with milk, and his servants were in the habit of leaving their milk cans all day in the house.

It thus seems very probable that in some way the contagion was carried from this house to the farm, where it contaminated the milk on April 28th, and, through the milk, infected the farmer and three members of his household, as well as many cases in the Withington district.

Upon the occurrence of the first case of scarlet fever at the farm, that is on May 2nd, the Medical Officer of Health of Cheadle, gave instructions for all the cows to be sent away from the farm to some premises at a distance, but owing to the farmer being ill in bed the instructions were not fully carried out, and the *cows supplying Withington* were retained and, continued to provide milk for this township until May 5th when all milk was stopped from leaving the farm.

In all, there were 40 cases in Withington, arising directly or indirectly (by the subsequent infection of other members of the households) from the milk. Three cases arose in Didsbury, and one in Chorlton-cum-Hardy.

Some curious instances of accidental infection were heard of during the investigation. In one case, a lady living in Didsbury visited her sister in Withington on April 30th, and while there drank a glass of milk derived from the contaminated supply. She commenced with scarlet fever the day following. Her sister who also partook of the milk, but who had suffered some years previously from scarlet fever, was confined to the house with a severe sore throat and subsequently her little girl contracted the fever from her.

In another case, a householder who usually dealt with a different milkman, sent on May 3rd, for a pint of extra milk, to the shop where the infected milk was being sold. Her son commenced with the disease on May 6th. Several similar instances were met with. The one patient who had the fever in Chorlton-cum-Hardy, contracted it in Didsbury, where he worked, by taking some of the contaminated milk in his tea.

Five deaths occurred as the result of this milk poisoning, giving a case mortality of 11·3 per cent.

In all instances after cases of scarlet fever have been notified to the Authority, the houses have been visited as early as possible, and information has been gathered in each case with regard to the possible source of infection, number of the family in the house, the schools, laundry, milk supply, etc. All the houses have been inspected as to their sanitary condition. Printed precautions have been given to the householder and all schools and laundries concerned have been warned.

At the end of a case, the room occupied by a patient has been thoroughly disinfected by the evolution of euchlorine gas, and

by subsequently stripping the paper from the walls and lime-washing them. The bedding has been stoved by the Manchester Corporation.

The schools do not appear to have acted as centres for the spread of the fever during the year.

TABLE XIV.

Cases of diphtheria in 1900.

	Withington	Didsbury	Chorlton-cum-Hardy	Burnage	Totals	Number removed to Hospital
January.....	...	I	...	...	I	I
February .....	...	...	...	...	...	...
March .....	...	...	I	...	I	...
April .....	...	...	...	...	...	...
May .....	...	...	...	...	...	...
June	I	...	...	...	I	...
July	I	...	...	...	I	...
August	I	...	I	...	2	...
September .....	...	I	I	...	2	...
October.....	I	...	...	...	I	...
November	2	...	2	..	4	2
December.....	I	...	...	...	I	I
	7	2	5	...	14	4

Diphtheria and membranous croup.—Fourteen cases of diphtheria were reported during the year, distributed, as to time and place, as shown in Table XIV.

In 1899 there were 16 cases notified, in 1898 22, in 1897 16, and in 1896 13.

In nine of the fourteen cases the secretion of the throat was submitted to the bacteriological test, and in seven instances the diphtheria bacilli were found to be present, while in two they were not found. In the remaining five cases a test was not asked for.

Besides these cases of actual diphtheria, there were 23 tests in cases of suspicious sore throat, without however the specific organism being found. In all, there were 33 specimens examined, compared with 17 in 1899, 17 in 1898, and 28 in 1897.

Two deaths occurred during the year, one in Withington and one in Monsall hospital in a patient belonging to Withington.

Two cases of membranous croup were notified during the year, both of which proved fatal. The two cases occurred in the same family within ten days of one another. No other cases were reported.

If we include these fatal cases of membranous croup, we obtain a case mortality of 25 per cent., compared with 12·5 per cent. in 1899, and 20 per cent in 1898.

Disinfection was carried out after every case of diphtheria or membranous croup in the same manner as after scarlet fever, and in all cases the premises in which the disease occurred were inspected as to their sanitary condition.

Whooping Cough.—Three deaths occurred from whooping cough, one in Withington, one in Didsbury, and one in Chorlton-cum-Hardy. The disease has prevailed considerably in the district, but no school has had to be closed during the year on that account.

Enteric Fever.—Eight cases of enteric fever have been reported during the year, compared with 16 in 1899, 25 in

TABLE XV.
Cases of enteric fever in 1900.

	Withington	Didsbury	Chorlton-cum-Hardy	Burnage	Totals.	Number removed to Hospital.
January.....	...	...	...	...	...	...
February .....	...	...	...	...	...	...
March .....	...	..	I	...	I	...
April .....	...	I	...	...	I	...
May	I	...	...	...	I	...
June .....	...	...	...	...	...	...
July .....	...	...	...	...	...	...
August .....	...	...	...	...	...	...
September .....	...	I	...	...	I	I
October.....	I	...	I	...	2	I
November .....	...	...	...	...	...	...
December.....	...	...	I	I	2	...
	2	2	3	I	8	2

1898, 10 in 1897, and 10 in 1896. Of the eight cases, in two the disease was undoubtedly contracted outside the district, as shown by the fact that in one the symptoms commenced four days after arrival in Withington, after an absence of three months, and in the other they began two days after the arrival of the patient in Didsbury. In two instances the drains of the premises upon which the cases occurred were found to be defective, and in one of these the privy was built up against the scullery wall. The drains have been re-laid in the one case and are in hand in the second instance, and the privy and ashpit have been replaced by a water closet and a galvanised iron receptacle.

In the remaining four houses no sanitary defects were found and no history pointing definitely to the manner or place in

which the disease had been contracted could be obtained, except that in one case the patient had eaten oysters and crab on December 5th, and began to be ill on December 19th, and that in another the patient had been shooting in the country for two or three weeks before his illness commenced.

The special pails which have been supplied by the Council for the purpose since 1896 were provided as usual for the reception of the evacuations of the patients, being changed weekly and the contents being conveyed to the destructor. At the termination of the cases both ashpits and water-closets have been washed down with a solution of corrosive sublimate.

In six of the eight cases the blood was examined bacteriologically and the diagnosis was confirmed. In two cases no test was made. In eight other suspicious cases the blood was submitted to the test without the characteristic re-action being obtained. Total 14 tests.

Diarrhœa.—An important decision has recently been published by the Royal College of Physicians with regard to the certification and classification of deaths from this disease. The College authorizes the use of the terms *epidemic enteritis* or *zymotic enteritis* as synonyms for *epidemic diarrhœa* or *summer diarrhœa*, and urges the entire disuse in medical certificates of death of such terms as gastro-enteritis, muco-enteritis, gastric catarrh, &c.

The advantage to Officers of Health and others if this instruction is carried out will be obvious, since it is now recognised that the complaint in question is one of a specific character which should not be confused with dyspeptic diseases nor registered in such a manner as to leave any ambiguity as to its nature.

Erysipelas.—Six cases of this disease were notified, one of which proved fatal. No monthly nurse was employed in any of the cases.

Puerperal fever.—No case of puerperal fever was reported during the year.

Phthisis.—On Feb. 28th, 1900, a resolution was passed by the Health Committee, and confirmed on March 8th by the Council, to the effect “that disinfection be carried out after cases of phthisis where the Medical Officer considered it necessary.”

Of the 38 deaths which were caused by phthisis among residents of the district, seven took place in the Chorlton Union Hospital, and four between the beginning of the year and March 8th, 1900, the date when disinfection of premises in which the disease occurred was sanctioned by the Council, leaving 27 cases to be accounted for. The result has been as follows:—

Room of patient disinfected, paper stripped and walls limewashed, and bedding stoved	11 cases.
Partial disinfection	3 cases.
Disinfection refused	13 cases.

In one instance disinfection was fully carried out after the removal of a phthisical patient to a sanatorium.

The death-rate from phthisis for the year is 1·08 per thousand of the population, compared with 1·4 in 1891 and 1·05 in 1881 (Census years).

Removal to hospital.—The total number of cases removed to hospital is shown in the table below.

Patients removed to hospital:—

Monsall Hospital.	Chorlton Union Hospital.
Scarlet fever 114	Scarlet fever..... 1
Diphtheria 4	
Enteric fever 2	
<hr/> 120 <hr/>	<hr/> 1 <hr/>

The proportion of patients removed to Monsall Hospital compared with the total number of cases of fever is shown in the following table (Table XVI.) with the previous five years for comparison.

TABLE XVI.

<i>Percentage of patients removed to Monsall Hospital suffering from scarlet fever, diphtheria and enteric fever, from 1895 to 1900.</i>						
Year.	Number of cases of fever in the district.			Removed to Monsall.	Per-centage	
1895	S. F. 102.	D. 22.	E. 20...Total 144	49	34	
1896	S. F. 120.	D. 13.	E. 10... „ 143	63	44	
1897	S. F. 177.	D. 16.	E. 10... „ 203	121	59.6	
1898	S. F. 70.	D. 22.	E. 25... „ 117	54	46	
1899	S. F. 68.	D. 16.	E. 16... „ 100	28	28	
1900	S. F. 204.	D. 14.	E. 8... „ 226	120	53	

It will be seen from this table that a larger proportion of cases of fever have been removed to Monsall Hospital during the past year than in any year of the preceding five years, with the exception of 1897.

Disinfection.—The total number of articles stoved by the Manchester Corporation on behalf of the Council in 1900 was 4,817, and consisted of the following :—Beds, 280 ; mattresses, 426 ; pillows, 836 ; blankets, 622 ; counterpanes, 224 ; carpets, 431 ; various articles of clothing, 1640 ; and sundries, 358.

III.

An account of the sanitary state of the district generally at the end of the year.

Zymotic disease.—At the end of 1900 scarlet fever was very prevalent and unfortunately the disease has not disappeared from the district up to the time of writing. The recent cases however, have almost all been removed to Monsall Hospital as they have arisen, and the premises have been disinfected. Whooping cough too has been rather prevalent, but now appears to be subsiding. Two houses remain to be disinfected from last year's cases of fever,

Water Supply.—Four analyses of water have been made during the year, the water of one pump being analysed twice. The water of this pump has been condemned, while in the others the results were doubtful and the analyses are to be repeated in a short time.

Manchester water has been supplied to two milk farms during the year, Red Bank Farm, Didsbury, and Pytha Farm, Burnage. In two instances, viz:—Whitehall Farm, Didsbury and High Farm, Burnage, tenders have been received and it is probable that the work will be put in hand very shortly.

The work however, of supplying the outlying properties of the district with pure water is proceeding very slowly and especially is it to be regretted that there are still three milk farms in Chorlton-cum-Hardy of which the only water available for drinking purposes or for washing milk-cans has been found by analysis to be polluted.

In many parts of the district which are away from the the centres of population there are pumps only for the water supply and although these are not associated with any milk

farms, they are all supplied by shallow wells and are consequently never free from the danger of becoming seriously contaminated.

Drainage of the district.—The properties fronting Burnage Lane already mentioned in previous reports, which have hitherto been draining into our streams are now in process of being connected with the sewers belonging to the District Council of Heaton Norris and when the work has been completed a considerable amount of sewage will have been diverted.

In other parts of the district there are still comparatively isolated dwellings necessarily draining into cesspools and thence into water courses. There is, however, a gradual extension of the sewers in all directions and in time there will be but few buildings unconnected with them.

Building in the district during the year.—440 new houses were certified as being fit for habitation during the year ending December 31st, 1900. Of these, 169 were in Withington, including Whalley Range, 66 in Didsbury, 191 in Chorlton-cum-Hardy, and 14 in Burnage. In the case of all these new houses, the drains have been water-tested before being passed. Since the appointment of an inspector for the drains of new houses in April, 1897, there have been 1,562 new houses erected, all of which have had their drains subjected to his supervision and testing, so that we have the satisfaction of knowing that at all events in this respect our new buildings are likely to be perfectly healthy.

Sanatorium at Baguley.—The buildings for this new hospital are in a forward state, but much remains to be done, and it is probable that they will not be ready for the reception of patients until the end of the present year.

The question of the establishment of a separate small-pox hospital in conjunction with other sanitary authorities is still under consideration.

IV.

An account of the enquiries made by the Officer of Health as to conditions injurious to health existing in the district, and of the proceedings relating to such conditions, in which he has taken part or advised under the Public Health Act, 1875.

It will be seen from the summary below that a large number of houses and other premises have been dealt with during the year, and that the work of the Health Committee has been actively continued.

A very serious question, however, has to be considered among other insanitary conditions which still exist in the district—that is the presence of offensive privies and ashpits in the rear of houses which are crowded together upon a comparatively small area. Such privies and ashpits may not cause very serious detriment to health when placed in open spaces, as in the case of isolated houses on the outskirts of the district, but when gathered together on either side of a confined back passage and in close proximity to the back rooms of houses, their bad effects upon the health and comfort of the tenants must be manifest.

In the houses which are now being built these unwholesome conditions are almost if not entirely unknown, water-closets taking the place of the privies, and galvanised iron receptacles* being used for refuse, but many houses still have the old-fashioned arrangements, which are difficult to improve, except by the substitution of water-closets. This, however, is a step which owners of property object to take on account of expense.

During the year 22 privies have been converted into water-closets, and 27 are still under notice.

* 394 of these receptacles, of a uniform pattern, were sold by the Withington District Council to property owners during last year.

Work called for by notice has been supervised by the inspector of sanitary alterations, the drains and soil pipes being water-tested after reconstruction. This supervision has been going on since 1896, and it is a source of gratification to know that all drainage work completed since then is likely to be of a permanently satisfactory character, such as we have already seen obtains in the case of new houses built since 1897.

In the case of sanitary alterations in houses carried out without the formality of notices, the drains are tested in like manner by the inspector of nuisances.

The actual number of notices served for the amelioration of insanitary properties was 136, but of these 8 were duplicates, leaving 128, exactly the same number as that of 1899. These notices referred to 324 premises as compared with 307 in 1899.

Summary of action of the Health Committee during the year.

Notice served for the alteration of insanitary properties having reference to 320 houses and four farms	128
Insanitary properties altered without notice (houses)	38
Notices, etc., on account of filthy premises	1
Notices under Dairies and Cowsheds Orders.. .. .	4
Notices to enter premises under section 41 of the Public Health Act.	53
Notices etc., on account of injurious and foul accumulations :	
Nightsoil tips	2
Manure heaps	1
Other injurious accumulations	0
Notices, etc., on account of animals kept so as to be a nuisance ..	3
Notices, etc., on account of overcrowding	0
Notices, etc., in connection with slaughter-houses	0
Notices, etc., in connection with the sewers	0
Notices, etc., in connection with stables.. .. .	2
Notices, etc., on account of filthy streams	0
Premises inspected as to their sanitary condition after cases of infectious fever	
Premises disinfected after fevers (including phthisis)	199
Premises smoke-test	14
Premises, inspected, but no action required	15

Back passages reported, and referred to the Highways Committee..	2
Inspection of grave at Chorlton-cum-Hardy Parish Church	0
Water analyses	4
Milk analyses.. .. .	0
Beer analysis	1
Legal proceedings on account of insanitary properties.. .. .	0
Chimney firing	6
Chimney firing, fines for (amounting to 8s.)	5
Seizure of food as unwholesome	1

Under the Dairies and Cowsheds Orders there were four notices served, compared with six in 1899. Two of these notices have been complied with, together with three others dating from 1899, but there still remain four notices not yet carried out, two of 1899 and two of 1900.

No application has been made during the year for the examination of any grave at the Chorlton-cum-Hardy Parish Churchyard.

There are no offensive trades carried on in the district.

No premises have been reported as being insanitary by the Inspector of Factories, but as usual any premises ascertained to have been opened as factories or workshops during the year have been reported to him.

*Particulars as regards milk sellers, bakehouses,
slaughter-houses, etc.*

Registered milk sellers in the district	119
Registered cowkeepers	42
Cowsheds	70
Number of bakehouses (W 7, D 11, C 12, B 1).. .. .	31
Number of slaughter-houses (W 2, D 2, C 1)	5

(The slaughter-house in Chorlton-cum-Hardy is not used at present.)

The dairies have been constantly inspected during the year, and as a rule have been found to be in a satisfactory condition.

Bakehouses.—The number of bakehouses in the district is increasing, but all new ones are built with their floors on the ground level.

There are now six bakehouses still in existence which have their floors below the ground level, instead of eight as in 1899, the use of two having been discontinued during the past year. Of the six, two are in Withington, one is in Didsbury, and three are in Chorlton-cum-Hardy.

All the bakehouses have been inspected, and with very few exceptions have been found to be clean, and if it were possible to abolish the cellar bakehouses above mentioned, with their defects of space and ventilation, the bakehouses would then compare favourably with those of any other district.

Slaughter-houses.—The slaughter-houses have been regularly inspected, and no nuisances have been reported with regard to them during the year.

Ashpits, etc.—The number of ashpits emptied is as follows:—Ashpits with privies, 7,156; ashpits without privies, 11,573; movable receptacles, 55,492; cesspools, 98. Number of loads of refuse collected, 14,599.

TABLE I.

URBAN DISTRICT OF WITHINGTON

FOR WHOLE DISTRICT.

YEAR.	Population estimated to Middle of each Year. District and Workhouse.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		DEATHS IN PUBLIC INSTITUTIONS.	Deaths of Non-residents registered in District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES. NETT.	
		Number.	Rate.*	Number.	Rate per 1,000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1890.	25,825	484	20·1	64	130	948	36·7	655	637	0	311	12·9
1891.	25,848	548	22·8	67	100	1,025	39·6	687	662	0	363	15·
1892.	26,633	540	21·8	66	120	847	31·8	528	507	1	340	13·7
1893.	27,336	548	21·5	82	150	925	33·8	592	576	3	333	13·1
1894.	28,142	542	20·7	49	90	761	27·	498	473	4	288	11·
1895.	28,944	577	21·5	69	119	901	31·1	591	566	6	335	12·5
1896.	29,657	602	21·5	67	111	903	30·4	604	585	3	318	11·5
1897.	30,483	658	23·3	63	95	972	31·8	655	628	9	344	12·1
1898.	32,195	593	19·7	82	138	990	30·7	628	603	6	387	12·8
1899	34,041	626	19·5	66	105	1,074	31·5	734	711	10	363	11·3
Averages for years 1890-1899.	28,910	571	21·2	67	115	934	32·4	617	594	4	338	12·5
1900	37,167	671	19·1	75	111	1,311	35·2	936	907	22	408	11·6

* Rates calculated per 1,000 of estimated population, (exclusive of Workhouse).

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district of the division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of illness, and dying there; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

Area of District in acres (exclusive of area covered by water). 5,728

Total population at all ages, (exclusive of the Workhouse), 23,838

Number of inhabited houses, 4,666

Average number of persons per house, 5·1

At Census of 1891

TABLE II.
URBAN DISTRICT OF WITHINGTON.

NAMES OF LOCALITIES.	1. THE WHOLE DISTRICT.				2. WITHINGTON.				3. DIDSBURY.				4. CHORLTON-CUM-HARDY.				5. BURNAGE.			
YEAR.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>
1891 ...	24,000	548	363	67	10,390	211	149	36	7,225	168	92	9	4,772	116	73	14	1,613	53	24	6
1892 ...	24,700	540	340	66	10,606	220	136	29	7,434	152	93	12	4,982	117	68	15	1,678	51	22	9
1893 ...	25,400	548	330	82	10,822	206	127	32	7,643	157	95	23	5,192	127	63	17	1,743	58	29	9
1894 ...	26,100	542	284	49	11,038	193	89	16	7,852	160	90	15	5,402	138	65	10	1,808	51	15	4
1895 ...	26,800	577	329	69	11,254	199	120	28	8,061	176	86	19	5,612	152	71	14	1,873	50	27	7
1896 ...	27,500	602	315	67	11,470	238	137	28	8,270	155	88	15	5,822	142	62	13	1,938	67	28	10
1897 ...	28,200	658	335	63	11,686	236	156	22	8,479	171	86	14	6,032	190	67	16	2,003	61	26	10
1898 ...	30,000	593	387	82	12,408	225	169	32	8,707	143	96	17	6,752	157	88	24	2,133	68	28	9
1899 ...	32,000	626	363	66	13,263	229	164	36	9,037	160	75	8	7,502	188	104	17	2,198	49	20	5
Averages of Years 1891 to 1899.	27,188	581	338	68	11,437	217	138	28	8,078	160	89	14	5,785	147	73	16	1,887	56	24	7
1900 ...	35,000	671	408	75	14,673	264	178	25	9,670	156	103	20	8,360	181	95	22	2,297	70	32	8

NOTES.—(a) The separate localities adopted for this table are areas of which the populations are obtainable from the census returns, such as wards, parishes or groups of parishes, or registration sub-districts. Block 1 may, if desired, be used for the whole district; and blocks 2, 3, &c., for the several localities. In small districts without recognised divisions of known population this table need not be filled up.

(b) Deaths of residents occurring beyond the district are to be included in sub-columns *c* of this table, and those of non-residents registered in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

(c) Deaths of residents occurring in public institutions are to be allotted to the respective localities, according to addresses of the deceased.

TABLE III.

URBAN DISTRICT OF WITHINGTON.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1900.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.				NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY			
	At all Ages.	At Ages†—Years.						Withington. 1	Didsbury. 2	Chorlton-cum-Hardy. 3	Burnage. 4	Withington. 1	Didsbury. 2	Chorlton-cum-Hardy. 3	Burnage. 4
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.								
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	14	...	4	5	3	2	...	7	2	5	...	2	1	1	...
Membranous croup	2	...	1	1	...	...	...	2	...	...	...	...	...	...	...
Erysipelas	6	...	1	...	...	4	1	3	2	1	...	...	...	...	...
Scarlet fever	204	1	43	103	38	19	...	108	40	52	4	67	19*	26	3
Typhus fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	8	...	1	...	1	5	1	2	2	3	1	1	1	...	...
Relapsing fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	234	1	50	109	42	30	2	122	46	61	5	70	21	27	3

NOTES.—The localities adopted for this table are the same as those in Tables II. and IV.

The name of the isolation hospital, used by the sick of the district—Monsall Fever Hospital in the City of Manchester.

* One of these cases was removed to the Chorlton Union Hospital.

TABLE IV.
WITHINGTON URBAN SANITARY DISTRICT.
CAUSES OF, AND AGES AT, DEATH DURING YEAR 1900.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN LOCALITIES (AT ALL AGES).				DEATHS IN PUBLIC INSTI- TUTION.
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards.	Withing- ton.	Didsbury.	Chorlton- cum- Hardy.	Burnage.	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Measles... ..	7	3	3	1	...	...	...	2	5	...	...	...
Scarlet fever	8	...	4	4	...	...	...	4	3	...	1	7
Whooping-cough	3	1	2	...	...	...	..	1	1	1	...	...
Diphtheria and mem- branous croup	4	...	3	1	...	...	...	4	...	...	...	1
Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Fever {	Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...
	Enteric ... ..	...	...	...	...	...	...	...	...	...	...	...
	Other continued ... ..	...	...	...	...	...	...	...	...	...	...	...
Epidemic influenza	19	...	1	1	1	11	5	12	4	3	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	9	5	2	...	...	...	2	3	1	4	1	...
Enteritis	6	5	...	...	...	...	1	4	2	...	...	...
Puerperal fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	1	...	...	...	...	...	1	...	...	1	...	...
Other septic diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis	38	...	...	1	5	30	2	18	12	4	4	7
Other tubercular di- seases	20	5	6	5	1	3	...	5	6	9	...	1
Cancer, malignant di- sease	22	...	...	...	1	14	7	14	3	3	2	3
Bronchitis	41	8	1	1	...	10	21	9	11	13	8	2
Pneumonia	32	1	3	1	1	18	8	18	5	7	2	9
Pleurisy ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Other diseases of Res- piratory organs	5	...	1	...	1	3	...	2	...	3	...	...
Alcoholism) Cirrhosis of liver }	9	...	...	...	...	8	1	5	2	2	...	1
Venereal diseases	5	5	...	...	...	...	...	3	1	1	...	3
Premature Birth	15	15	...	...	...	...	...	...	3	9	3	...
Diseases and accidents of parturition	3	...	...	...	...	3	...	1	1	1	...	...
Heart diseases	32	...	1	4	...	17	10	14	6	10	2	3
Accidents	5	3	...	1	...	1	...	4	1	...	...	2
Suicides ... ..	...	...	...	...	...	...	...	...	...	...	...	...
All other causes	124	24	4	8	5	39	44	56	39	24	9	13
All causes	408	75	31	28	15	157	102	178	103	95	32	52

